

REMARKS/ARGUMENTS

Claims 1-37 were pending in the Application, with claims 1-15 and 24-32 having been withdrawn. By this amendment, claims 16 and 34 are being amended and new claims 38-44 are being added, to advance the prosecution of the application. No new matter is involved.

Beginning on page 3 of the Office Action, claims 16, 17, 20-23 and 33-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,677,749 of Tsubota, et al. in view of U.S. Patent 6,222,603 of Sakai, et al. and further in view of U.S. Patent 6,211,938 of Mori. On page 6 of the Office Action, claims 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsubota, et al. '749 in view of Sakai, et al. '603 and further in view of U.S. Patent 3,655,477 of Scholl, et al. These rejections are respectfully traversed, particularly in view of the amendments being made herein to claims 16 and 34.

With respect to independent claims 16 and 34, none of the cited references disclose or suggest a structure in which a buffer plate having an opening is disposed on "each of two sides" of a pair of substrates and a thermosetting seal material is heated and cured through the buffer plate with no pressure being applied to the display region overlapping the opening of the buffer plate.

With regard to Tsubota, it is stated in the Office Action that "Tsubota illustrates in Figure 26, a pressuring member having a groove – it looks like a lattice type structure. Also, Figure 33 shows a buffering layer having a groove – again, it looks like a lattice shape structure". However, the groove of Tsubota is formed irrespective of the portions corresponding to the display regions of the display panel. As clearly shown in Figures 26 and 33 of Tsubota, the area of the region where the groove is formed is much smaller than the area of the region where no groove is formed, and the groove is not formed such that it overlaps the

display region. Moreover, Tsubota does not recognize the necessity for aligning the groove with the display region.

Sakai does not recognize the necessity for forming an opening in a buffer material having a two-layer structure. Moreover, both Tsubota and Sakai only disclose that a structure corresponding to the buffer layer is provided only one of the outer surfaces of a pair of display panels. Application of pressure at the opening portion can be prevented by providing the buffer plate having an opening on each of the two outer surfaces of the display panel and applying a pressure through such buffer plates, as in the present invention. Therefore, with no opening provided that corresponds to the display region and also with the buffer layer not provided on both sides of the substrates when performing a pressure application process for curing a thermosetting seal material, a pressure is inevitably applied onto the display region. With such a structure, it is not possible to form a spacerless LCD with high accuracy of a gap. However, neither Tsubota nor Sakai even recognize such a problem.

Furthermore, Mori does not describe provision of a buffer plate in the prior art section referred to in the Office Action. Referring to Fig. 6 or the like of Mori, a space is formed in a region where the O-ring 4 is not provided, though not indicated by the Office Action. However, this space corresponds to the "pressure range 16", and the substrate surface is pressurized by spraying a compressed air onto the substrate surface in this pressure range 16. Accordingly, in Mori, the buffer plate is opened and has no region where a pressure is not applied. In addition, in Mori, the region where the pressuring member does not physically contact the substrate, such as the pressure range 16, is provided for the purpose of "pressure application". Therefore, Mori is completely blind to the concept of providing a region in which no pressure is applied.

As amended herein, independent claims 16 and 34 each recite the step of "heating and curing said thermosetting seal material while selectively applying a pressure from said outer surface of said display panel body to the region where the thermosetting seal material is disposed through said buffer plates, without pressing the display regions of the display panel body which overlap the openings formed in the buffer plates, in the portions of the buffer plates corresponding to the openings". As noted above, none of the cited references, taken alone or in the attempted combination thereof, disclose or suggest the feature in accordance with the invention of heating and curing the thermosetting seal material without pressurizing the display region overlapping the opening.

Claims 17-23, 33 and 35-37 depend directly or indirectly from and contain all of the limitations of one of the independent claims 16 and 34, so that such claims are also submitted to clearly distinguish patentably over the references.

Similar comments apply to new claims 38 and 39 which depend respectively from claims 16 and 34. Likewise, new claims 40 and 41 depend from and contain all of the limitations of claims 21 and 36 respectively.

New independent claim 42 is similar to independent claim 16, and new independent claims 43 and 44 are similar to independent claim 34, so that such claims are also submitted to clearly distinguish patentably over the prior art.

In conclusion, claims 16-23 and 33-37 and new claims 38-44, are submitted to clearly distinguish patentably over the cited references for the reasons discussed above. Therefore, reconsideration and allowance are respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6846 to discuss the steps necessary for placing the application in condition for allowance.

Appl. No. 09/917,099

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Reply to Office Action of September 20, 2005

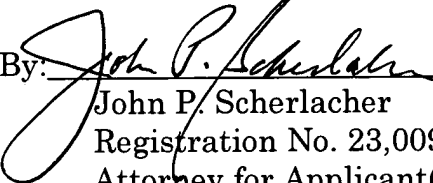
If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,

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